

650 Capitol Mall, 5th Floor Sacramento, CA 95814 Phone: (916) 445-5511 Fax: (916) 445-7297 www.calwater.ca.gov

> P. Joseph Grindstaff, Director

State Agencies
The Resources Agency:

Department of Water Resources

Department of Fish and Game
Delta Protection Commission

Department of Conservation

San Francisco Bay Conservation and Development Commission

California State Parks

The Reclamation Board

California Environmental Protection Agency:

State Water Resources Control Board

California Department of Food and Agriculture

California Department of Health Services

Federal Agencies

Department of the Interior:

Bureau of Reclamation

Fish and Wildlife Service

Geological Survey

Bureau of Land Management

US Army Corps of Engineers

Environmental Protection Agency

Department of Agriculture:

Valural-Resources-Conservation-Service-

Department of Commerce:

National Marine Fisheries Service

Western Area Power Administration

Date: September 14, 2007

To: John Kirlin, Executive Director

Delta Vision Blue Ribbon Task Force

From: Mike Healey

CALFED Lead Scientist

Subject: Draft DRMS Phase 1 Report Independent Review

At the request of the Department of Water Resources (DWR), the Science Program, working with the Independent Science Board (ISB), assembled a panel of independent experts to review the draft DRMS Phase 1 Report (Phase 1 Report). The Independent Review Panel (IRP) was chaired by former Lead Scientist, Johnnie Moore, of University of Montana and included Rich Adams, Ph.D., Oregon State University; Bob Gilbert, Ph.D., University of Texas, Katharine Hayhoe, Ph.D., Texas Tech University & ATMOS Research & Consulting; W.F. Marcuson III, Ph.D., P.E., American Society of Civil Engineers; Arthur Mynett, Sc.D., Delft Hydraulics; Deb Niemeier, Ph.D., P.E., University of California, Davis; Kenny Rose, Ph.D., Louisiana State University; and Roy Shlemon, Ph.D., Roy J. Shlemon, and Associates, Inc. This is a highly qualified panel to review the DRMS analysis. The panel received the Phase 1 Report on June 29, 2007, met in Sacramento, CA for discussion on August 2-3, 2007, and submitted its review to the Science Program on August 23, 2007. Because of delays in preparation of the Phase 1 Report, the IRP worked on a very short time line to produce a thorough and insightful review of the document.

The IRP was highly critical of the Phase 1 Report finding serious methodological difficulties in several areas. The most serious general concerns of the IRP were labeled Tier 1. For your information, I have attached the review summary and Tier 1 issues as provided by the IRP. The IRP also had many more specific technical criticisms labeled Tier 2. I have not attached these as they are highly technical but some of them also speak to important methodological problems with the Phase 1 Report.

The ISB was briefed on the IRP review at its August 28, 2007, meeting by Johnnie Moore and expressed concern about apparent methodological problems and lack of transparency in the Phase 1 Report. The IRP review has been forwarded to DWR. Joe Grindstaff and I met with representatives of DWR and their consultants to decide how the concerns of the IRP should be addressed. It was agreed that DWR and its consultants would prepare a response detailing how they would address the concerns of the IRP and work with the IRP to ensure that the final Phase 1 Report is transparent and provides as quantitatively accurate

assessment of risks as possible. The DRMS consultants have prepared a response to the IRP concerns, accepting that there are problems with the report and analyses that need to be addressed (except for the analysis of seismic risk, where the IRP appeared not to have understood the analysis). DWR and the DRMS consultants have conferred with the IRP in conference call and there is general agreement as to how the Phase 1 analysis and report should be revised. The DRMS consultants will also participate in a conference call with the ISB September 25th to discuss the DRMS response to the IRP review. The DRMS consultants are proceeding with revisions and new analyses, however, it will probably be at least November or December before a revised report can be completed, perhaps not even then. The required changes are substantial and will take time.

Until such time as the Phase 1 Report is revised and the substantive concerns of the IRP are addressed, I caution the Task Force to use the conclusions of the report and any analyses that depend on Phase 1 (e.g., the draft Phase 2 report and building block "flash cards" as presented to the Task Force) with caution. The conclusions of Phase 1, that the risk of levee failure due to a seismic event is high and that the costs of levee upgrading will be very high are consistent with other analyses and are probably true, but the quantitative estimates of risk and cost cannot be depended on at this stage.

Sincerely,

Mike Healey

CALFED Lead Scientist

Attachment

cc:

Les Harder, DWR

Ralph Svetich, DWR